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# Stimulus_generator_attractiveness1
# Version 4.0
# Last update: 22 July, 2010
# Written by: Yi Xu (yi.xu@ucl.ac.uk)

stimulusDirectory$ = "Stimuli/"
sourceDirectory$ = "Source/"
Create Strings as file list... list 'sourceDirectory$'*.aiff
numberOfFiles = Get number of strings

formant_shift_ratio1 = 1.1
formant_shift_ratio2 = 1.0
formant_shift_ratio3 = 0.9

pitch_shift1 = 2
pitch_shift2 = 0
pitch_shift3 = -2

for current_file from 1 to numberOfFiles
  select Strings list
  fileName$ = Get string... current_file
  call manipulation 'fileName$'
endfor

procedure manipulation file_name$
  for formant from 1 to 3
    for pitch from 1 to 3
      Read from file... 'sourceDirectory$'file_name$'
      source$ = selected$ ("Sound")
      Change gender... 100 600 formant_shift_ratio'formant' 0 1 1
      Rename... intermediateSound

      To Pitch... 0 75 600
      oldPitchMedian = Get quantile... 0 0 0.5 Hertz
      Down to PitchTier

      npoints = Get number of points

      for point from 1 to npoints
        pitch1 = Get value at index... point
        time = Get time from index... point
        newPitch = pitch1 * 2^(pitch_shift'pitch'/12)
        Remove point... point
        Add point... time newPitch
      endfor

      select Sound intermediateSound
      To Manipulation... 0.01 75 600
      plus PitchTier intermediateSound
      Replace pitch tier
      select Manipulation intermediateSound
      Get resynthesis (overlap-add)
      Rename... intermediateSound1
      Write to WAV file... 'stimulusDirectory$'source$'formant'pitch'.wav
      plus Sound intermediateSound
      plus Sound intermediateSound1
      plus Manipulation intermediateSound
      plus PitchTier intermediateSound
      plus Pitch intermediateSound
      plus Sound 'source$'
      Remove
    endfor
  endfor
endproc

```